

MCP Public Hearing Draft Overview of Proposals

Waste Site Cleanup Advisory Committee

May 24, 2012



Last advisory committee meeting...

- BWSC presented both conceptual and specific MCP amendment proposals on a range of topics

* 3/22/12 Advisory Committee mtg presentation/audio at <http://www.mass.gov/dep/public/committee/sac312.htm>

* Reg reform mtg notes/blog at <http://mcpregreform.wordpress.com/>



Today's discussion...


focus on updates to proposals

- AUL
- Permits/Tier Classification/NRS
- LNAPL and source control
- Vapor intrusion-related
- Closure
- MCP Standards

MCP Public Hearing Draft

Process & Format

very nearly

- Final BWSC draft is  ready for MassDEP mgmt review
- Hearings and comment period to be scheduled once draft is approved by EEA/A&F
- Public Hearing Draft organized by topics
- ***“Notes to Reviewers”*** describe intent of amendment and seek input on proposal/alternatives

AULs Amendments

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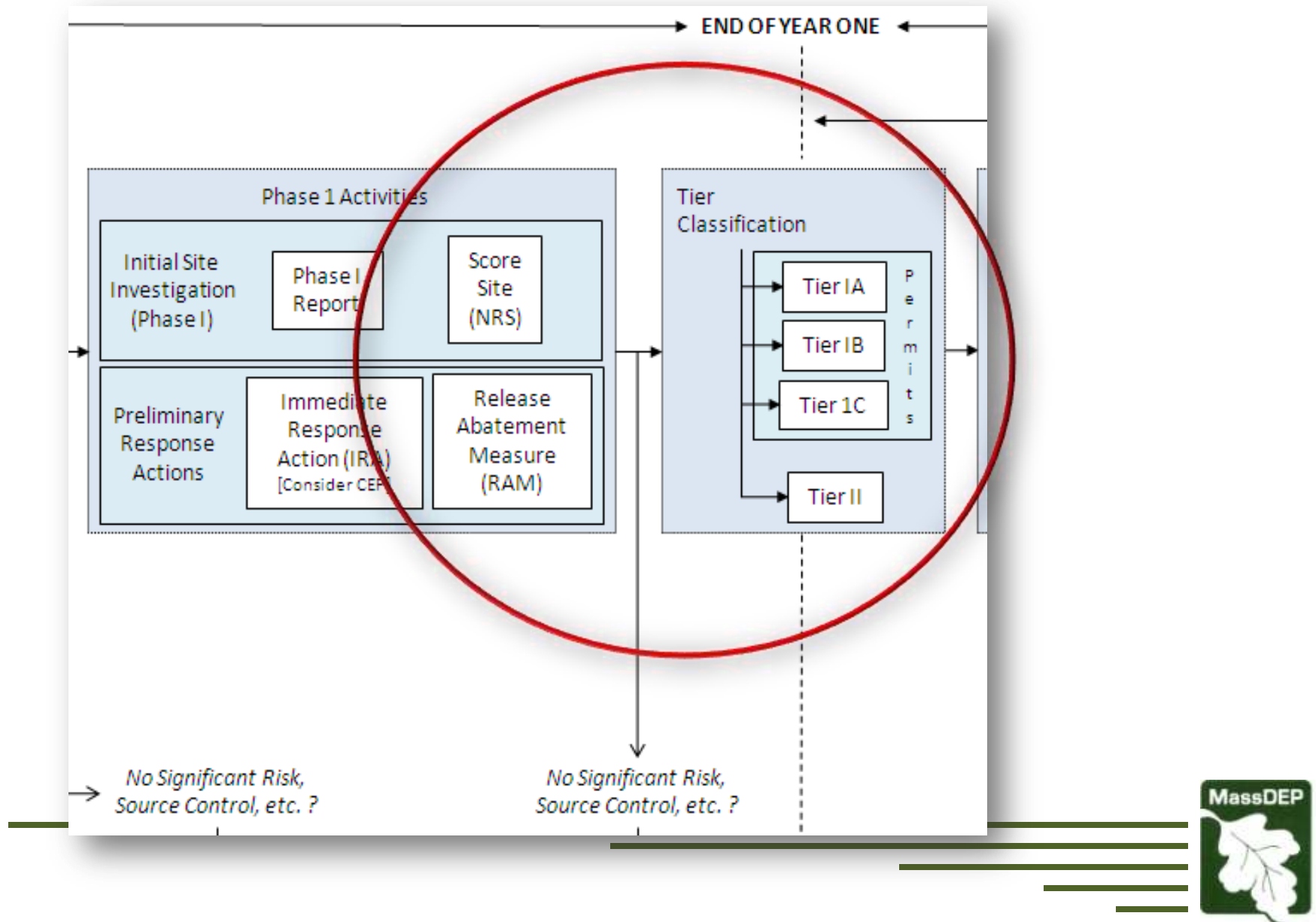
- Eliminate AUL Opinion
- Eliminate Exhibit A (legal description of parcel) - already part of the deed
- Highlight current req. to incorporate AUL into future deeds, easements, other instruments of transfer
- Require documentation be sent to MassDEP when AUL is incorporated into a *deed*
- Revise Amendment form so resulting doc. presents all inconsistent /consistent Activities and Uses
- Seek suggestions on AUL forms readability and conformance with similar conveyancing instruments

AUL Amendments

New since last meeting...

- Amendments to CERCLA Adequately Regulated provisions at 40.0111 and 40.1070 to provide for use of Notices of AUL at CERCLA sites

Eliminate Permits/Streamline Tier Class/NRS



Permit Amendments

- No Tier I or Tier II permit; same process for both Tiers
- Uniform extension timeframe of 2 years unless MassDEP specifies otherwise
- Retains provisions to restart clock for Eligible Persons/Tenants (currently 40.0570)
- Special Project Permits retained



Numerical Ranking System Amendments

- Phase I still the basis for Classification information
- NRS scoresheet replaced by streamlined “Tier I Criteria” directed at concerns that MassDEP flags for closer review/potential oversight
- No subclasses of Tier I, except Tier ID (defaults)
- Subpart O eliminated; scoring requirements added to Subpart E



Proposed Tier I Criteria

One or more of the following exist at time of Tier Classification

- OHM above RCGW-1 in a Zone II, IWPA *or within 500 feet of a private drinking water supply well*
- Presence of an Imminent Hazard
- IRA where *remedial* action is required
- IRA to address a CEP is required

Tier Classification Amendments

- MassDEP eDEP system would assign Tier Classification on basis of whether one or more criterion is met
- Once Tier I criterion condition is addressed, site may be reclassified (would likely be automatic with receipt of subsequent transmittal forms)



Related Proposals

- Subpart F (Transition Provisions) is eliminated
- Incorporate CSM requirement into Phases I & II
- Deadline for Phase II/III completion changed to 3 years from Tier Classification

Fees

- Fee Changes – to be determined
- Options
 - Phase based fees
 - Submittal based fees
 - Tier based fees
 - Fees on sites with ongoing obligations
- Fee change effective date a consideration relative to effective date of MCP amendments

Light Non-Aqueous Phase Liquids (LNAPL) & Source Elimination/Control



310 CMR 40.0996:

“The presence of non-aqueous phase liquids (NAPL) having a thickness equal to or greater than $\frac{1}{2}$ ***inch*** in any environmental medium is considered to be a level which exceeds Upper Concentration Limits (UCLs)” and hence which ***prohibits the attainment of a Permanent Solution.***



310 CMR 40.0006:

This thickness is “as a ***continuous separate phase*** as measured in a groundwater ***monitoring well*** or ***otherwise observed in the environment.***”



Multi-Phase Fluid Flow in Porous Media or LNAPL Conceptual Site Model (LCSM)

Fundamental

More accurate

Not necessarily simple



Guiding Principles

- Keep it simple
- Focus on MCP and PS
- Clear, established, peer-reviewed, published works

MCP Changes Being Proposed

- Eliminate ½ inch UCL
- Correct NAPL definition (eliminate “continuous”)
- Define “Stable” and “Non-stable” NAPL
- Reference LCSM principles (site characterization and remediation “to the extent feasible”)
- *Revised Source Elimination/Control Provisions addressing range of source issues, including NAPL and limiting exposure potential (e.g., vapor intrusion)*

Source Elimination/Control Proposals

- Provide “Source of OHM Contamination” definition - refers to the original OHM release location and/or contaminated media from which OHM can migrate as a bulk material.
- Require elimination of Source of OHM Contamination if feasible
- If elimination is not feasible, then Source of OHM Contamination must be controlled
- Performance standards for “control” are specified

Source Control Performance Standards

- Absence of Non-Stable NAPL
- Removal of LNAPL to extent feasible (using LCSM principles)
- OHM plumes in any media not expanding
- *Absence of DNAPL constituent concentrations greater than 1% of their solubility limit*

LNAPL

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Vapor Intrusion-related Amendments

*(in addition to Source Control and
Closure proposals)*

VI-Related Amendments

- Incorporate VI considerations better in Phases I & II; add CSM definition and documentation
- Clarify VI-related SRM conditions (that trigger 72 hr notification)
- CEP amendments
 - *New definitions of Residential Dwelling & Living or Working Space (exclude incidental use of one hr or less)
 - *Reduced IRA Status Report frequency for non-IH CEPs
 - *Clear provisions for completing IRAs to address CEPs

MCP Closure Provisions

Endpoints

Formerly-Known-As-RAOs

TEMPORARY SOLUTIONS

NOTHING
FEASIBLE

NOT TEMPORARY NOR PERMANENT SOLUTIONS

Former
C-2 RAOs

Sites in
ROS

PERMANENT SOLUTIONS

**PERMANENT SOLUTION
With NO CONDITIONS**

NATURAL
BACKGROUND

RESIDENTIAL

**PERMANENT SOLUTION
With CONDITIONS**

NO AUL REQUIRED

ACTIVITY & USE LIMITATION

AUL & ENGINEERED BARRIER

AUL & PERMIT

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Permanent Solution with Conditions – AUL & Permit

- For Active Exposure Pathway Elimination Measures (e.g., active sub-slab depressurization systems)
- AUL to provide notice of obligations
- Permit to operate the system

What About the Permits?

OLD THOUGHTS (3/22/12) ON PERMITS...

- Permit for operating the system.
- Compliance subject to audit
- Noncompliance invalidates Permanent Solution
- Permits *remain active until cancelled or revoked*
- Permits can be transferred
- Permit conditions...FAM, remote sensing, battery-power back-up
- Fees would be applicable.

What About the Permits?

NEW THOUGHTS ON PERMITS...

- Permit presumptively approved
- Standardized permit conditions
- Who can hold permit?
 - Person taking Response Actions?
 - Property owner?
 - Either? Both?
- Certification of Acceptance by non-Permitee property owners?
- How to capture future property owners?



Permanent
Solution
with Conditions
(No AUL)

The Concept:

The LABEL of “Permanent Solution with Conditions” would provide enough notice that an AUL is not required.

- Makes you wonder, “*What Conditions?*”
- Assumes easy & known access to DEP files

4 Types of Sites:

- Non-commercial gardening addressed qualitatively & recommending BMPs
 - Elevated OHM attributable to Anthropogenic Background
 - Residual contamination within a public way or within a rail right-of-way;
 - Absence of an occupied building, but OHM in groundwater greater than GW-2 levels (future VI concern)
-

GARDENING

- Clarify role of qualitative risk assessment in Subpart I
- Gardening pathway removed from calculation of Method 1 Standards (Pb, PCBs, etc...)
- Allow use of “assumed future practices, controls or conditions” for specific limited & specified circumstances (gardening)
- MCP would require recommendation of gardening BMPs in closure statement

GARDENING

MassDEP is concerned that future owners are AWARE of issue... use of BMPs then becomes an *informed choice*.

Promotion of BMPs for gardening is becoming more common for *non-MCP* issues, like lead paint, historic fill, natural elevated levels, etc...

Background

- Background means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern, including both Natural Background and Anthropogenic Background

New!!

Natural Background

...means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern, are ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern, and attributable to geologic or ecological conditions.

Anthropogenic Background

means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern and which are:

- atmospheric deposition of industrial process or engine emissions;
- attributable to Historic Fill;
- specifically exempt from c.21E & MCP;
- releases to groundwater from a public water supply system; or
- incidental petroleum residues.

Historic Fill

NEED GOOD DEFINITION HERE w/o RESORTING
TO TABLE OF CONCENTRATIONS

non-indigenous material, deposited to raise the
topographic elevation of the site...

metals and/or semi-volatile compounds (excluding
PCBs)...weathered... often see construction and demolition
debris and ash... exclude midnight dumping & illegal disposal...
exclude hazardous waste... contaminated before it got there
(releases onto fill still count!)... not waste material from
location's operation...



Background Clarifications

(Subparts I & J)

- OHM at or below background are not included in MCP Risk Characterization
- OHM at or below background do not require further Response Actions
- Includes both Natural and Anthropogenic Backgrounds

Right-of-Way Exclusion from AUL

- OLD stuff – just a new box.
- Boring
- Move On

Future Building VI Issue

(see VI Guidance, section 4.7)

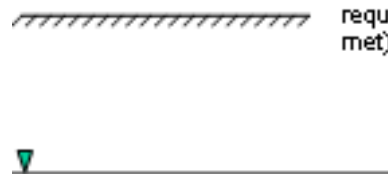
- Groundwater >GW-2, shallower than 15 feet
- But for absence of building, would be GW-2
- How is POTENTIAL for VI conveyed to future developer to allow for steps to:
 - Build
 - Protect health of future occupants
 - Let's just say avoid any MCP entanglements (to the extent feasible)
- Permanent Solution with Conditions (no AUL)



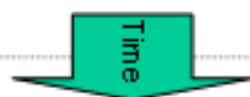
A "Low"

MCP Closure:

- A-2 or B-1 RAO
- No AJL
- (assumes all other requirements are met)



$gw < GW-2$



Building Construction

- Unrestricted Use
- No MCP requirements

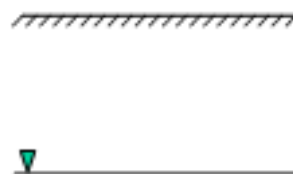


B "Elevated"

MCP Closure:

(assumes all other requirements are met)

- A-3 or B-2 RAO (includes AJL)
- A-2 or B-1 (with potential future notification obligation)



$gw < 10 \times GW-2$



Building Construction

- AJL Applies
- post-RAO RAM with submittals



Vapor Barrier & SSDS

Documentation

- VB & SSDS installed meeting Performance Stds



(assumes unchanged gw conditions)

C "High"

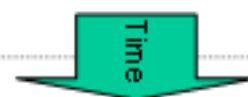
MCP Closure:

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- A-3 or B-2 RAO (includes AJL)
- A-2 or B-1 (with potential future notification obligation)

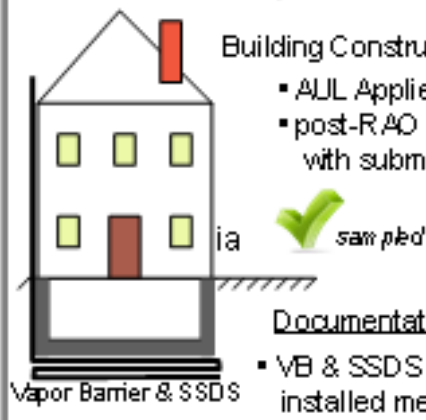


$gw > 10 \times GW-2$



Building Construction

- AJL Applies
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Vapor Barrier & SSDS

Documentation

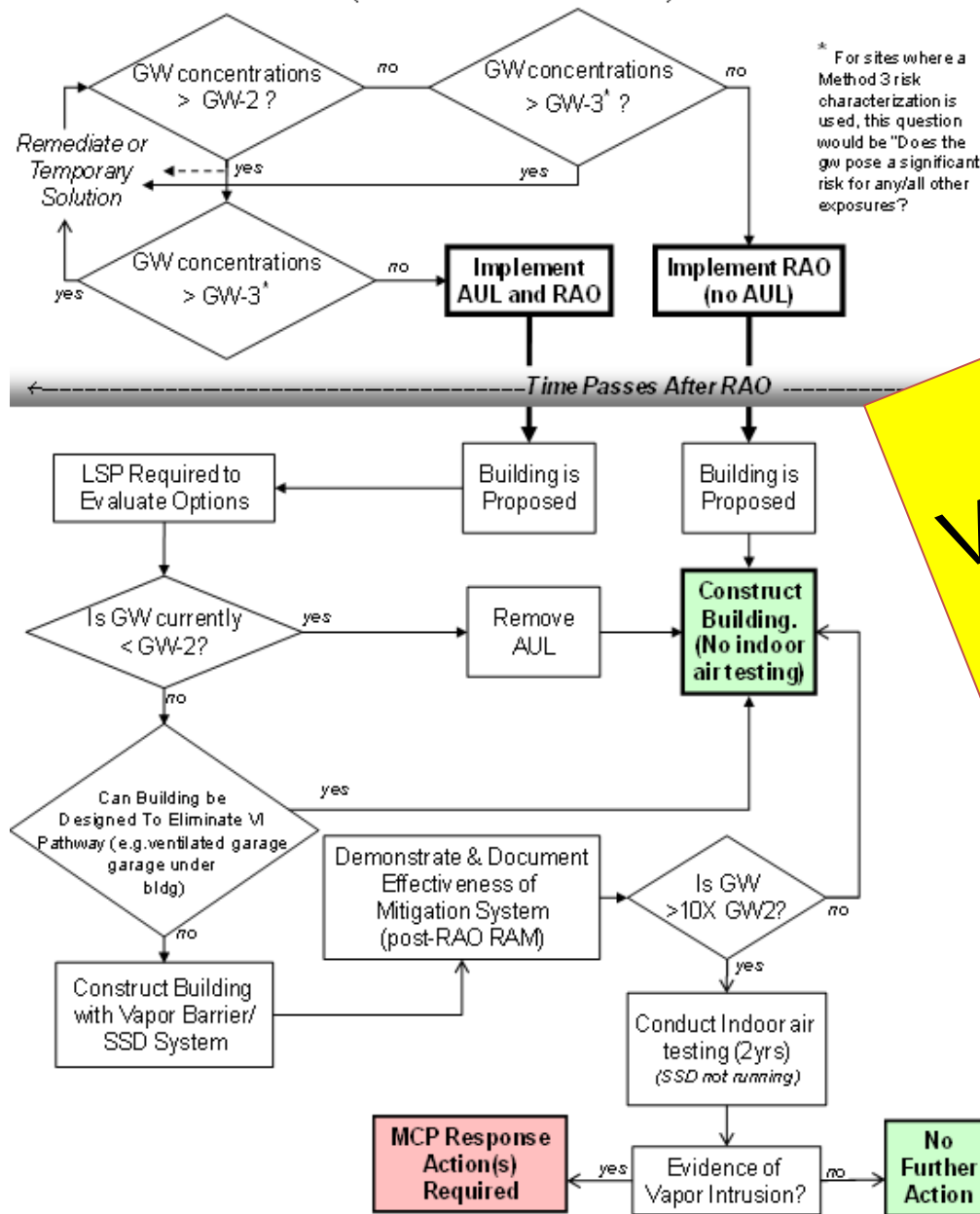
- VB & SSDS installed meeting Performance Stds
- 2 yrs indoor air sampling results (consistent with existing bldg requirements)



(assumes unchanged gw conditions)

Protecting Future Buildings

in Areas of Potentially Significant Vapor Intrusion but No Current Building
(Assumes Site is Not in GW-1 Area)



The graphics & VI Guidance will need to be revised!

Method 1 Standards

Summary of Proposed Revisions

Method 1 Standards - Proposed Revisions

Updates and Revisions:

- Update toxicity values
- Update indoor air background
- Remove produce consumption exposures
- Remove “sludge” criteria for Pb, Zn and PCBs
- Change S2 and S3 background levels to ‘concentrations associated with fill material’

Housekeeping:

- Simplify and update the RAFs
- Correct the hardness-based NRWQC calculations

